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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/440,102	11/15/1999	AUSTIN L. HUANG	BWD:7156.053	2533

7590 01/02/2003

CHERNOFF VILHAUER
MCCLUNG & STENZEL LLP
600 BENJ FRANKLIN PLAZA 1600 ODS TOWER
601 S W SECOND AVENUE
PORTLAND, OR 972043157

EXAMINER

DUONG, TAI V

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 01/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/440,102

Applicant(s)

HUANG, AUSTIN L.

Examiner

TAI DUONG

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3. 6) ☐ Other: ____

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Claims 2-16 and 19-33 are directed to different embodiments or species. However, an election of species has not been required or made because in the examiner's opinion these embodiments or species are obvious variants.

Claim 33 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 33, the recited limitation "said birefringence of each of said pixels" lacks antecedent basis.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 15, 17-19, 21 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Chigrinov et al.

Note Figs. 5 and 6 which identically disclose the claimed method and the claimed projection display system comprising a light source 36, one polarizer 38, one liquid crystal panel 40, a projection source (48, 49), and a polarization compensator 52 (col. 5, lines 40-62).

Claims 1, 3, 4, 7, 11, 15, 17, 18, 20, 21, 24 and 28 rejected under 35 U.S.C. 102(b) as being anticipated by Iba.

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Note Figs. 13-15 which identically disclose the claimed method and the claimed projection display system comprising a light source (I in), one polarizer 10, one liquid crystal panel (12-14), a projection source 52, a polarization compensator 55, and an analyzer 15 (col. 11, line 15 - col. 12, line 22).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 5-14, 16, 20, 22-28 and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chigrinov et al in view of Iba, Yamamoto et al, Kizaki et al (cited by Applicant), Ferguson and Ootaki (cited by Applicant).

These claims are obvious variants of the projection system of Chigrinov et al by employing a) a concentric polarization compensator, b) the compensator being a transmissive LCD, c) the compensator being built into the LC panel, d) the compensator being located at an aperture stop or at one of the entrance pupil and exit pupil, e) the compensator being electrically controlled, f) a feedback mechanism to adjust the birefringence of the compensator, g) the birefringence of the compensator being adjustable over time, h) a plurality of LC panels. However, the features a)-h) are known as evidenced by the above references, e.g. a) by Iba's Figs. 15, b) by Kizaki and Yamamoto, c) by Chigrinov's Figs. 1 and 2, d) by Ferguson, e) by Kizaki and Yamamoto, f) by

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Kizaki, g) by Yamamoto, h) by Ootaki. To employ the above features in the projection system of Chigrinov would have been an obvious matter of design choice which depends on the desired objective among fabrication cost, good contrast, weight, compactness and complexity of the driving circuitry.

Claims 2, 5, 6, 8-10, 12-14, 16, 19, 22, 23, 25-27 and 29-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iba in view of Chigrinov et al, Yamamoto et al, Kizaki et al (cited by Applicant), Ferguson and Ootaki (cited by Applicant).

These claims would have been obvious for the same reasons set forth in the above 103 rejection.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication should be directed to Tai Duong at telephone number 703 308-4873.

ROBERT H. KIM
SUPERVISOR, PATENT EXAMINER
TECHNICAL STAFF

TVD

TVD

12/02